

WO 2005/072475

PCT/US2005/003560

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EX05-004patentin.txt

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## EX05-004patentin.txt

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## EX05-004patentin.txt

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## EX05-004patentin.txt

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## EX05-004patentin.txt

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690 695 700  
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## EX05-004patentin.txt

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930 935 940

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945 950 955 960

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965 970 975

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1010 1015 1020

## EX05-004patentin.txt

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## EX05-004patentin.txt

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## EX05-004patentin.txt

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## EX05-004patentin.txt

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1940 1945 1950

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1970 1975 1980

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1985 1990 1995

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2000 2005 2010

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Thr Ala Cys Cys Thr Cys Thr Gly Gly Gly Gly Cys Cys Thr Gly  
2030 2035 2040

## EX05-004patentin.txt

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## EX05-004patentin.txt

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## EX05-004patentin.txt

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## EX05-004patentin.txt

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Thr Cys Thr Cys Thr Cys 2885 Thr Thr Thr Cys Thr 2895 Cys Cys Cys  
Ala Gly Cys Ala Ala Ala 2900 Cys 2905 Thr Gly Cys Ala 2910 Gly Thr Gly  
Cys Ala Gly Ala Ala Ala 2915 Gly 2920 Gly Ala Gly Gly Thr 2925 Thr Cys Ala  
Gly Ala Gly Gly Cys Thr 2930 Gly 2935 Gly Gly Ala Ala Ala 2940 Gly Thr Gly  
Gly Gly Cys Cys Thr Cys 2945 Cys 2950 Cys Cys Thr Thr Gly 2955 Cys Ala Ala  
cys Thr Cys Ala Gly Ala 2960 Gly 2965 Cys Thr Gly Cys Thr 2970 Gly Cys Ala  
cys Thr Cys Ala Gly Gly Ala 2975 Gly 2980 Gly Gly Gly Cys Cys 2985 Cys Cys Ala  
Thr Cys Cys Ala Ala Thr 2990 Cys 2995 Cys Cys Gly Gly Gly 3000 Cys Cys Cys  
cys Thr Gly Cys Ala Gly 3005 Gly 3010 Gly Ala Ala Ala Ala 3015 Gly Cys Gly  
Cys Thr Gly Gly Gly Thr 3020 Gly 3025 Thr Gly Thr Gly Thr 3030 Cys Ala Gly  
Ala Gly Gly Cys Gly Cys Ala 3035 Gly 3040 Gly Gly Gly Thr Gly 3045 Gly Gly Thr  
Gly Gly Gly Cys Thr Gly 3050 Cys 3055 Cys Cys Ala Gly Cys 3060 Cys Ala Gly

## EX05-004patentin.txt

Gly Ala Cys Cys Cys Thr Gly 3065      Gly Cys Cys Thr Gly 3075      Cys Ala Gly  
3070

Cys Cys Thr Gly Ala Thr Cys 3080      Cys Ala Ala Ala Cys 3085      Cys Ala Ala  
3090

Ala Gly Ala Cys Thr Gly 3095      Thr Ala Gly Ala Ala Cys 3100      Cys Cys Thr  
3105

Gly Gly Gly Gly Thr Gly 3110      Thr Gly Cys Thr Ala 3120      Ala Cys Gly  
3115

Gly Cys Cys Cys Thr Cys 3125      Cys Ala Gly Cys Ala 3130      Cys Cys Cys  
3135

Ala Thr Ala Gly Cys Cys Ala 3140      Gly Gly Thr Cys 3145      Thr Cys Cys  
3150

Thr Gly Cys Cys Cys Thr 3155      Gly Ala Gly 3165      Cys Thr Gly  
3160

Gly Gly Cys Thr Gly Gly 3170      Cys Ala Cys Ala 3175      Gly Gly Cys  
3180

Ala Cys Cys Thr Ala Cys Cys 3185      Thr Cys Thr Thr Cys 3190      Cys Thr Thr  
3195

Ala Ala Gly Cys Thr Gly Ala 3200      Ala Gly Cys Thr Cys 3205      Cys Cys Ala  
3210

Cys Ala Cys Thr Gly Thr Cys 3215      Cys Ala Cys Ala 3220      Gly Gly Gly  
3225

Cys Thr Gly Ala Gly Gly Ala 3230      Gly Ala Thr Gly Cys 3235      Thr Cys Thr  
3240

Cys Cys Thr Thr Thr Cys 3245      Thr Ala Cys Thr Gly 3250      Ala Cys Cys  
3255

Ala Thr Cys Thr Thr Gly Ala 3260      Thr Ala Cys Thr Thr 3265      Ala Thr Thr  
3270

Thr Ala Thr Ala Cys Gly Ala 3275      Gly Ala Gly Gly Cys 3280      Ala Gly Thr  
3285

Thr Gly Cys Thr Gly Gly Ala 3290      Cys Gly Gly Gly Gly 3295      Thr Ala Gly  
3300

Thr Ala Cys Thr Gly Gly Gly Ala 3305      Ala Ala Gly Cys Ala 3310      Gly Gly Ala  
3315

## EX05-004patentin.txt

Gly Gly Cys Ala Gly Ala Ala Thr Gly Gly Cys Thr Cys Thr Gly  
3320 3325 3330 3335

Cys Thr Gly Ala Gly Cys Cys Thr Cys Cys Thr Ala Cys Cys Cys  
3335 3340 3345

Ala Thr Gly Ala Cys Ala Ala Cys Ala Cys Cys Cys Cys Ala Ala  
3350 3355 3360

Thr Ala Ala Ala Cys Ala Gly Ala Ala Cys Ala Thr Thr Cys Ala  
3365 3370 3375

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3380 3385 3390

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<210> 7  
<211> 2052  
<212> PRT  
<213> Homo sapiens

<400> 7

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Cys Gly Ala Gly Gly Cys Gly Gly Ala Gly Cys Cys Gly Gly  
35 40 45

Gly Cys Gly Cys Thr Gly Cys Cys Gly Cys Gly Cys Gly  
50 55 60

Cys Cys Cys Gly Cys Ala Thr Gly Gly Ala Cys Thr Gly Gly Ala  
65 70 75 80

Gly Gly Cys Gly Cys Cys Gly Gly Ala Gly Gly Ala Gly Gly  
85 90 95

Cys Gly Gly Cys Gly Gly Cys Gly Cys Ala Gly Cys Cys Gly Gly  
100 105 110

Gly Ala Cys Ala Gly Cys Ala Gly Cys Gly Ala Cys Cys Thr Gly Gly  
115 120 125

Gly Cys Cys Cys Gly Gly Cys Gly Cys Ala Gly Gly Gly Cys Cys  
130 135 140

## EX05-004patentin.txt

Cys Cys Gly Gly Cys Gly Gly Gly Cys Gly Gly Cys Cys Gly Gly  
145 150 155 160

Ala Gly Gly Gly Gly Gly Cys Gly Gly Cys Cys Cys Thr Gly  
165 170 175

Gly Gly Cys Cys Cys Gly Gly Ala Cys Ala Gly Ala Gly Gly Gly  
180 185 190

Thr Cys Cys Ala Gly Cys Cys Thr Cys Cys Ala Cys Ala Gly Cys Gly  
195 200 205

Ala Gly Cys Cys Thr Gly Ala Gly Ala Gly Gly Cys Cys Gly Gly  
210 215 220

Cys Cys Thr Cys Gly Gly Cys Cys Thr Gly Cys Gly Cys Cys Gly  
225 230 235 240

Gly Gly Gly Ala Cys Ala Gly Ala Gly Thr Cys Cys Gly Cys  
245 250 255

Ala Gly Gly Cys Ala Gly Ala Ala Thr Thr Cys Thr Gly Gly Ala Cys  
260 265 270

Ala Gly Ala Cys Gly Gly Ala Cys Ala Gly Ala Cys Thr Gly Ala Gly  
275 280 285

Cys Cys Cys Gly Cys Gly Cys Ala Gly Cys Thr Gly Gly Cys Cys  
290 295 300

Thr Thr Gly Gly Ala Gly Thr Ala Gly Ala Gly Ala Cys Cys Gly Ala  
305 310 315 320

Gly Ala Gly Gly Cys Cys Cys Ala Ala Gly Cys Ala Ala Ala Ala Gly  
325 330 335

Ala Cys Gly Gly Ala Gly Cys Cys Ala Gly Ala Cys Ala Gly Gly Thr  
340 345 350

Cys Cys Ala Gly Cys Cys Thr Cys Cys Gly Gly Ala Cys Gly Cys Ala  
355 360 365

Thr Cys Thr Ala Gly Ala Ala Thr Gly Gly Ala Gly Cys Thr Gly Gly  
370 375 380

Thr Cys Ala Gly Ala Gly Cys Thr Gly Gly Ala Gly Ala Cys Gly Ala  
385 390 395 400

Cys Thr Thr Gly Thr Cys Thr Thr Thr Gly Gly Ala Cys Gly Ala  
405 410 415

EX05-004patentin.txt  
Gly Ala Cys Cys Gly Gly Ala Cys Ala Gly Ala Thr Gly Gly Cys  
420 425 430

cys Thr Thr Thr Gly Gly Ala Cys Thr Gly Ala Thr Cys Cys Gly Cys  
435 440 445

Ala Cys Ala Gly Gly Thr Cys Cys Gly Ala Cys Cys Thr Cys Cys Ala  
450 455 460

Gly Thr Thr Thr Cys Ala Gly Cys Cys Gly Ala Gly Gly Ala Gly  
465 470 475 480

Gly Cys Cys Ala Gly Cys Cys Cys Thr Gly Gly Ala Cys Ala Cys  
485 490 495

Ala Gly Cys Cys Ala Gly Gly Gly Thr Thr Cys Ala Thr Gly Gly  
500 505 510

Gly Cys Cys Cys Thr Gly Gly Ala Cys Ala Gly Ala Gly Cys Thr Gly  
515 520 525

Gly Ala Ala Ala Cys Gly Cys Ala Thr Gly Gly Thr Cys Ala Cys  
530 535 540

Ala Gly Ala Cys Thr Cys Ala Gly Cys Cys Ala Gly Ala Gly Ala Gly  
545 550 555 560

Gly Gly Thr Cys Ala Ala Gly Thr Cys Cys Thr Gly Gly Gly Cys Thr  
565 570 575

Gly Ala Thr Ala Ala Cys Cys Thr Cys Thr Gly Gly Ala Cys Cys Cys  
580 585 590

Ala Cys Cys Ala Gly Ala Ala Cys Ala Gly Thr Thr Cys Cys Ala Gly  
595 600 605

Cys Cys Thr Cys Cys Ala Gly Ala Cys Thr Cys Ala Cys Cys Cys Ala  
610 615 620

Gly Ala Ala Gly Gly Ala Gly Cys Cys Thr Gly Thr Cys Cys Cys Thr  
625 630 635 640

Cys Ala Ala Ala Ala Gly Ala Gly Cys Cys Ala Ala Gly Thr Gly Cys  
645 650 655

Thr Gly Ala Thr Gly Gly Cys Thr Cys Cys Thr Gly Gly Ala Ala Ala  
660 665 670

Gly Ala Ala Thr Thr Gly Thr Ala Thr Ala Cys Thr Gly Ala Thr Gly  
675 680 685

## EX05-004patentin.txt

Gly Cys Thr Cys Cys Ala Gly 690 695 Gly Ala Cys Ala Cys Ala Ala Cys Ala 700

Gly Gly Ala Thr Ala Thr Thr Gly Ala Ala Gly 710 715 Gly Thr Cys Cys Cys 720  
705

Thr Gly Gly Ala Cys Ala Gly 725 730 Cys Cys Ala Thr Ala Thr Ala 735

Cys Thr Gly Ala Thr Gly Gly Cys 740 745 Thr Cys Cys Cys Ala Gly Ala Ala 750

Ala Ala Ala Ala Cys Ala Gly 755 760 Gly Ala Thr Ala Cys Thr Gly Ala Ala 765

Gly Cys Ala Gly Cys Cys Ala Gly 770 775 Gly Ala Ala Ala Cys Ala Gly Cys 780

Cys Thr Gly Gly Cys Ala Cys 785 790 Thr Gly Gly Thr Gly Thr Thr Thr 800

Cys Cys Ala Ala Ala Thr Ala Cys Ala 805 810 Cys Ala Gly Gly Ala Thr 815

Ala Cys Thr Gly Ala Thr Gly Cys 820 825 Thr Cys Cys Thr Gly Gly Ala 830

Cys Ala Cys Ala Ala Cys Cys Thr Ala Gly Cys Ala 835 840 Cys Thr Gly Ala 845

Cys Gly Gly Thr Thr Cys Cys Cys Ala Gly Ala 850 855 Cys Ala Gly Cys Ala 860

Cys Cys Thr Gly Gly Ala Cys Ala Gly 865 870 Ala Cys Thr Gly Cys Cys 880

Thr Cys Thr Thr Gly Gly Ala Gly 885 890 Ala Cys Cys Thr Gly Ala 895

Gly Gly Ala Thr Gly Gly Cys Cys 900 905 Ala Thr Thr Ala Gly Ala Gly 910

Gly Ala Ala Cys Cys Ala Gly 915 920 Ala Gly Cys Cys Thr Gly Gly Ala Gly 925

Ala Ala Thr Thr Gly Cys Thr Gly Ala Cys Thr Cys Ala Cys Cys Thr 930 935

Gly Thr Ala Cys Thr Cys Thr Cys Ala Cys Cys 945 950 Thr Gly Ala Ala Gly 955 960

EX05-004patentin.txt

Thr Gly Thr Ala Gly Cys Cys Cys Cys Cys Thr Gly Cys Cys Cys  
965 970 975

cys Thr Gly Thr Gly Cys Cys Cys Cys Gly Cys Cys Thr Cys Ala Thr  
980 985 990

Cys Ala Thr Thr Ala Cys Cys Cys Cys Thr Gly Ala Gly Ala Cys Cys  
995 1000 1005

Cys Cys Thr Gly Ala Gly Cys Cys Thr Gly Ala Gly Gly Cys Cys  
1010 1015 1020

Cys Ala Gly Cys Cys Ala Gly Thr Gly Gly Ala Cys Cys Cys  
1025 1030 1035

Cys Cys Cys Thr Cys Cys Cys Gly Gly Gly Thr Thr Gly Ala Gly  
1040 1045 1050

Gly Gly Gly Gly Cys Ala Gly Cys Gly Gly Cys Gly Gly Cys  
1055 1060 1065

Thr Thr Cys Thr Cys Cys Thr Cys Thr Gly Cys Cys Thr Cys Thr  
1070 1075 1080

Thr Cys Thr Thr Thr Cys Gly Ala Cys Gly Ala Gly Thr Cys Thr  
1085 1090 1095

Gly Ala Gly Gly Ala Thr Gly Ala Cys Gly Thr Gly Gly Thr Gly  
1100 1105 1110

Gly Cys Cys Gly Gly Gly Gly Cys Gly Gly Ala Gly Gly Thr  
1115 1120 1125

Gly Cys Cys Ala Gly Cys Gly Ala Thr Cys Cys Cys Gly Ala Gly  
1130 1135 1140

Gly Ala Cys Ala Gly Gly Thr Cys Thr Gly Gly Gly Ala Gly Cys  
1145 1150 1155

Ala Ala Ala Cys Cys Cys Thr Gly Gly Ala Ala Gly Ala Ala Gly  
1160 1165 1170

cys Thr Gly Ala Ala Gly Ala Cys Ala Gly Thr Thr Cys Thr Gly  
1175 1180 1185

Ala Ala Gly Thr Ala Thr Thr Cys Ala Cys Cys Cys Thr Thr Thr  
1190 1195 1200

Gly Thr Gly Gly Thr Cys Thr Cys Cys Thr Thr Cys Cys Gly Ala  
1205 1210 1215

EX05-004patentin.txt  
Ala Ala Ala Cys Ala Cys Thr Ala Cys Cys Cys Thr Thr Gly Gly  
1220 1225 1230 1235 1240 1245 1250 1255 1260 1265 1270 1275 1280 1285 1290 1295 1300 1305 1310 1315 1320 1325 1330 1335 1340 1345 1350 1355 1360 1365 1370 1375 1380 1385 1390 1395 1400 1405 1410 1415 1420 1425 1430 1435 1440 1445 1450 1455 1460 1465 1470

EX05-004patentin.txt  
Thr Ala Thr Cys Thr Gly Gly Ala Ala Gly Ala Gly Gly Ala Gly  
1475 1480 1485  
Cys Thr Ala Gly Thr Gly Ala Ala Gly Gly Cys Ala Cys Gly Gly  
1490 1495 1500  
Gly Ala Ala Cys Gly Thr Cys Cys Cys Gly Thr Cys Cys Cys  
1505 1510 1515  
Cys Gly Gly Ala Ala Gly Gly Ala Cys Ala Thr Gly Thr Ala Thr  
1520 1525 1530  
Gly Ala Gly Ala Ala Gly Ala Thr Gly Gly Thr Gly Gly Cys Thr  
1535 1540 1545  
Gly Thr Gly Gly Ala Cys Cys Cys Thr Gly Gly Gly Gly Cys Cys  
1550 1555 1560  
Cys Cys Thr Ala Cys Cys Cys Cys Thr Gly Ala Gly Gly Ala Gly  
1565 1570 1575  
Cys Ala Thr Gly Cys Cys Cys Ala Gly Gly Gly Thr Gly Cys Ala  
1580 1585 1590  
Gly Thr Cys Ala Cys Cys Ala Ala Gly Cys Cys Cys Cys Gly Cys  
1595 1600 1605  
Thr Ala Cys Ala Thr Gly Cys Ala Gly Thr Gly Gly Ala Gly Gly  
1610 1615 1620  
Gly Ala Ala Ala Cys Cys Ala Thr Gly Ala Gly Cys Thr Cys Cys  
1625 1630 1635  
Ala Cys Cys Thr Cys Thr Ala Cys Cys Cys Thr Gly Gly Gly Cys  
1640 1645 1650  
Thr Thr Cys Cys Gly Gly Ala Thr cys Gly Ala Gly Gly Gly Cys  
1655 1660 1665  
Ala Thr Cys Ala Ala Gly Ala Ala Gly Gly Cys Ala Gly Ala Thr  
1670 1675 1680  
Gly Gly Gly Ala Cys Cys Thr Gly Thr Ala Ala Cys Ala Cys Cys  
1685 1690 1695  
Ala Ala Cys Thr Thr Cys Ala Ala Gly Ala Ala Gly Ala Cys Gly  
1700 1705 1710  
Cys Ala Gly Gly Cys Ala Cys Thr Gly Gly Ala Gly Cys Ala Gly  
1715 1720 1725

EX05-004patentin.txt

Gly Thr Gly Ala Cys Ala Ala Ala Ala Ala Gly Thr Gly Cys Thr Gly  
1730 1735 1740 1745 1750 1755 1760 1765 1770 1775 1780 1785 1790 1795 1800 1805 1810 1815 1820 1825 1830 1835 1840 1845 1850 1855 1860 1865 1870 1875 1880 1885 1890 1895 1900 1905 1910 1915 1920 1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980

Cys Gly Thr Gly Ala Gly Gly Ala Cys Gly Gly Cys Thr Ala Cys  
1985 1990 1995 EX05-004patentin.txt  
Cys Thr Cys Thr Gly Gly Gly Cys Cys Thr Gly Gly Ala Cys  
2000 2005 2010  
Ala Ala Cys Ala Thr Gly Ala Thr Cys Thr Gly Cys Cys Thr Cys  
2015 2020 2025  
Cys Thr Gly Cys Ala Gly Gly Gly Cys Thr Gly Gly Cys Ala  
2030 2035 2040  
Cys Ala Gly Ala Gly Cys Thr Gly Ala  
2045 2050

<210> 8  
<211> 461  
<212> PRT  
<213> Homo sapiens

<400> 8  
Met Thr Leu Pro Gly Gly Pro Thr Gly Met Ala Arg Pro Gly Ala  
1 5 10 15

Arg Pro Cys Ser Pro Gly Leu Glu Arg Ala Pro Arg Arg Ser Val Gly  
20 25 30

Glu Leu Arg Leu Leu Phe Glu Ala Arg Cys Ala Ala Val Ala Ala Ala  
35 40 45

Ala Ala Ala Gly Glu Pro Arg Ala Arg Gly Ala Lys Arg Arg Gly Gly  
50 55 60

Gln Val Pro Asn Gly Leu Pro Arg Ala Pro Pro Ala Pro Val Ile Pro  
65 70 75 80

Gln Leu Thr Val Thr Ala Glu Glu Pro Asp Val Pro Pro Thr Ser Pro  
85 90 95

Gly Pro Pro Glu Arg Glu Arg Asp Cys Leu Pro Ala Ala Gly Ser Ser  
100 105 110

His Leu Gln Gln Pro Arg Arg Leu Ser Thr Ser Ser Val Ser Ser Thr  
115 120 125

Gly Ser Ser Ser Leu Leu Glu Asp Ser Glu Asp Asp Leu Leu Ser Asp  
130 135 140

Ser Glu Ser Arg Ser Arg Gly Asn Val Gln Leu Glu Ala Gly Glu Asp  
145 150 155 160

Val Gly Gln Lys Asn His Trp Gln Lys Ile Arg Thr Met Val Asn Leu  
Page 31

EX05-004patentin.txt  
165                    170                    175

Pro Val Ile Ser Pro Phe Lys Lys Arg Tyr Ala Trp Val Gln Leu Ala  
180                    185                    190

Gly His Thr Gly Ser Phe Lys Ala Ala Gly Thr Ser Gly Leu Ile Leu  
195                    200                    205

Lys Arg Cys Ser Glu Pro Glu Arg Tyr Cys Leu Ala Arg Leu Met Ala  
210                    215                    220

Asp Ala Leu Arg Gly Cys Val Pro Ala Phe His Gly Val Val Glu Arg  
225                    230                    235                    240

Asp Gly Glu Ser Tyr Leu Gln Leu Gln Asp Leu Leu Asp Gly Phe Asp  
245                    250                    255

Gly Pro Cys Val Leu Asp Cys Lys Met Gly Val Arg Thr Tyr Leu Glu  
260                    265                    270

Glu Glu Leu Thr Lys Ala Arg Glu Arg Pro Lys Leu Arg Lys Asp Met  
275                    280                    285

Tyr Lys Lys Met Leu Ala Val Asp Pro Glu Ala Pro Thr Glu Glu Glu  
290                    295                    300

His Ala Gln Arg Ala Val Thr Lys Pro Arg Tyr Met Gln Trp Arg Glu  
305                    310                    315                    320

Gly Ile Ser Ser Ser Thr Thr Leu Gly Phe Arg Ile Glu Gly Ile Lys  
325                    330                    335

Lys Ala Asp Gly Ser Cys Ser Thr Asp Phe Lys Thr Thr Arg Ser Arg  
340                    345                    350

Glu Gln Val Leu Arg Val Phe Glu Glu Phe Val Gln Gly Asp Glu Glu  
355                    360                    365

Val Leu Arg Arg Tyr Leu Asn Arg Leu Gln Gln Ile Arg Asp Thr Leu  
370                    375                    380

Glu Val Ser Glu Phe Phe Arg Arg His Glu Val Ile Gly Ser Ser Leu  
385                    390                    395                    400

Leu Phe Val His Asp His Cys His Arg Ala Gly Val Trp Leu Ile Asp  
405                    410                    415

Phe Gly Lys Thr Thr Pro Leu Pro Asp Gly Gln Ile Leu Asp His Arg  
420                    425                    430

Arg Pro Trp Glu Glu Gly Asn Arg Glu Asp Gly Tyr Leu Leu Gly Leu  
Page 32

435

EX05-004patentin.txt  
440 445

Asp Asn Leu Ile Gly Ile Leu Ala Ser Leu Ala Glu Arg  
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<210> 9  
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<213> Homo sapiens

<400> 9

Met Ala Val Tyr Cys Tyr Ala Leu Asn Ser Leu Val Ile Met Asn Ser  
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Ala Asn Glu Met Lys Ser Gly Gly Pro Gly Pro Ser Gly Ser Glu  
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Thr Pro Pro Pro Pro Arg Arg Ala Val Leu Ser Pro Gly Ser Val Phe  
35 40 45

Ser Pro Gly Arg Gly Ala Ser Phe Leu Phe Pro Pro Ala Glu Ser Leu  
50 55 60

Ser Pro Glu Glu Pro Arg Ser Pro Gly Gly Trp Arg Ser Gly Arg Arg  
65 70 75 80

Arg Leu Asn Ser Ser Ser Gly Ser Gly Ser Ser Gly Ser Ser  
85 90 95

Val Ser Ser Pro Ser Trp Ala Gly Arg Leu Arg Gly Asp Arg Gln Gln  
100 105 110

Val Val Ala Ala Gly Thr Leu Ser Pro Pro Gly Pro Glu Glu Ala Lys  
115 120 125

Arg Lys Leu Arg Ile Leu Gln Arg Glu Leu Gln Asn Val Gln Val Asn  
130 135 140

Gln Lys Val Gly Met Phe Glu Ala His Ile Gln Ala Gln Ser Ser Ala  
145 150 155 160

Ile Gln Ala Pro Arg Ser Pro Arg Leu Gly Arg Ala Arg Ser Pro Ser  
165 170 175

Pro Cys Pro Phe Arg Ser Ser Ser Gln Pro Pro Gly Arg Val Leu Val  
180 185 190

Gln Gly Ala Arg Ser Glu Glu Arg Arg Thr Lys Ser Trp Gly Glu Gln  
195 200 205

cys Pro Glu Thr Ser Gly Thr Asp Ser Gly Arg Lys Gly Gly Pro Ser  
210 215 220

## EX05-004patentin.txt

Leu Cys Ser Ser Gln Val Lys Lys Gly Met Pro Pro Leu Pro Gly Arg  
225 230 235 240

Ala Ala Pro Thr Gly Ser Glu Ala Gln Gly Pro Ser Ala Phe Val Arg  
245 250 255

Met Glu Lys Gly Ile Pro Ala Ser Pro Arg Cys Gly Ser Pro Thr Ala  
260 265 270

Met Glu Ile Asp Lys Arg Gly Ser Pro Thr Pro Gly Thr Arg Ser Cys  
275 280 285

Leu Ala Pro Ser Leu Gly Leu Phe Gly Ala Ser Leu Thr Met Ala Thr  
290 295 300

Glu Val Ala Ala Arg Val Thr Ser Thr Gly Pro His Arg Pro Gln Asp  
305 310 315 320

Leu Ala Leu Thr Glu Pro Ser Gly Arg Ala Arg Glu Leu Glu Asp Leu  
325 330 335

Gln Pro Pro Glu Ala Leu Val Glu Arg Gln Gly Gln Phe Leu Gly Ser  
340 345 350

Glu Thr Ser Pro Ala Pro Glu Arg Gly Gly Pro Arg Asp Gly Glu Pro  
355 360 365

Pro Gly Lys Met Gly Lys Gly Tyr Leu Pro Cys Gly Met Pro Gly Ser  
370 375 380

Gly Glu Pro Glu Val Gly Lys Arg Pro Glu Glu Thr Thr Val Ser Val  
385 390 395 400

Gln Ser Ala Glu Ser Ser Asp Ser Leu Ser Trp Ser Arg Leu Pro Arg  
405 410 415

Ala Leu Ala Ser Val Gly Pro Glu Glu Ala Arg Ser Gly Ala Pro Val  
420 425 430

Gly Gly Gly Arg Trp Gln Leu Ser Asp Arg Val Glu Gly Gly Ser Pro  
435 440 445

Thr Leu Gly Leu Leu Gly Gly Ser Pro Ser Ala Gln Pro Gly Thr Gly  
450 455 460

Asn Val Glu Ala Gly Ile Pro Ser Gly Arg Met Leu Glu Pro Leu Pro  
465 470 475 480

Cys Trp Asp Ala Ala Lys Asp Leu Lys Glu Pro Gln Cys Pro Pro Gly  
485 490 495

## EX05-004patentin.txt

Asp Arg Val Gly Val Gln Pro Gly Asn Ser Arg Val Trp Gln Gly Thr  
500 505 510

Met Glu Lys Ala Gly Leu Ala Trp Thr Arg Gly Thr Gly Val Gln Ser  
515 520 525

Glu Gly Thr Trp Glu Ser Gln Arg Gln Asp Ser Asp Ala Leu Pro Ser  
530 535 540

Pro Glu Leu Leu Pro Gln Asp Gln Asp Lys Pro Phe Leu Arg Lys Ala  
545 550 555 560

Cys Ser Pro Ser Asn Ile Pro Ala Val Ile Ile Thr Asp Met Gly Thr  
565 570 575

Gln Glu Asp Gly Ala Leu Glu Glu Thr Gln Gly Ser Pro Arg Gly Asn  
580 585 590

Leu Pro Leu Arg Lys Leu Ser Ser Ser Ala Ser Ser Thr Gly Phe  
595 600 605

Ser Ser Ser Tyr Glu Asp Ser Glu Glu Asp Ile Ser Ser Asp Pro Glu  
610 615 620

Arg Thr Leu Asp Pro Asn Ser Ala Phe Leu His Thr Leu Asp Gln Gln  
625 630 635 640

Lys Pro Arg Val Ser Lys Ser Trp Arg Lys Ile Lys Asn Met Val His  
645 650 655

Trp Ser Pro Phe Val Met Ser Phe Lys Lys Lys Tyr Pro Trp Ile Gln  
660 665 670

Leu Ala Gly His Ala Gly Ser Phe Lys Ala Ala Ala Asn Gly Arg Ile  
675 680 685

Leu Lys Lys His Cys Glu Ser Glu Gln Arg Cys Leu Asp Arg Leu Met  
690 695 700

Val Asp Val Leu Arg Pro Phe Val Pro Ala Tyr His Gly Asp Val Val  
705 710 715 720

Lys Asp Gly Glu Arg Tyr Asn Gln Met Asp Asp Leu Leu Ala Asp Phe  
725 730 735

Asp Ser Pro Cys Val Met Asp Cys Lys Met Gly Ile Arg Thr Tyr Leu  
740 745 750

Glu Glu Glu Leu Thr Lys Ala Arg Lys Lys Pro Ser Leu Arg Lys Asp  
755 760 765

## EX05-004patentin.txt

Met Tyr Gln Lys Met Ile Glu Val Asp Pro Glu Ala Pro Thr Glu Glu  
770 775 780

Glu Lys Ala Gln Arg Ala Val Thr Lys Pro Arg Tyr Met Gln Trp Arg  
785 790 795 800

Glu Thr Ile Ser Ser Thr Ala Thr Leu Gly Phe Arg Ile Glu Gly Ile  
805 810 815

Lys Lys Glu Asp Gly Thr Val Asn Arg Asp Phe Lys Lys Thr Lys Thr  
820 825 830

Arg Glu Gln Val Thr Glu Ala Phe Arg Glu Phe Thr Lys Gly Asn His  
835 840 845

Asn Ile Leu Ile Ala Tyr Arg Asp Arg Leu Lys Ala Ile Arg Thr Thr  
850 855 860

Leu Glu Val Ser Pro Phe Phe Lys Cys His Glu Val Ile Gly Ser Ser  
865 870 875 880

Leu Leu Phe Ile His Asp Lys Lys Glu Gln Ala Lys Val Trp Met Ile  
885 890 895

Asp Phe Gly Lys Thr Thr Pro Leu Pro Glu Gly Gln Thr Leu Gln His  
900 905 910

Asp Val Pro Trp Gln Glu Gly Asn Arg Glu Asp Gly Tyr Leu Ser Gly  
915 920 925

Leu Asn Asn Leu Val Asp Ile Leu Thr Glu Met Ser Gln Asp Ala Pro  
930 935 940

Leu Ala  
945

<210> 10  
<211> 683  
<212> PRT  
<213> Homo sapiens

<400> 10

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Ala Leu Pro Ala Ala Ala Arg Met Gly Leu Glu Ala Pro Arg Gly Gly  
20 25 30

Arg Arg Arg Gln Pro Gly Gln Gln Arg Pro Gly Pro Gly Ala Gly Ala  
35 40 45

## EX05-004patentin.txt

Pro Ala Gly Arg Pro Glu Gly Gly Gly Pro Trp Ala Arg Thr Glu Gly  
50 55 60

Ser Ser Leu His Ser Glu Pro Glu Arg Ala Gly Leu Gly Pro Ala Pro  
65 70 75 80

Gly Thr Glu Ser Pro Gln Ala Glu Phe Trp Thr Asp Gly Gln Thr Glu  
85 90 95

Pro Ala Ala Ala Gly Leu Gly Val Glu Thr Glu Arg Pro Lys Gln Lys  
100 105 110

Thr Glu Pro Asp Arg Ser Ser Leu Arg Thr His Leu Glu Trp Ser Trp  
115 120 125

Ser Glu Leu Glu Thr Thr Cys Leu Trp Thr Glu Thr Gly Thr Asp Gly  
130 135 140

Leu Trp Thr Asp Pro His Arg Ser Asp Leu Gln Phe Gln Pro Glu Glu  
145 150 155 160

Ala Ser Pro Trp Thr Gln Pro Gly Val His Gly Pro Trp Thr Glu Leu  
165 170 175

Glu Thr His Gly Ser Gln Thr Gln Pro Glu Arg Val Lys Ser Trp Ala  
180 185 190

Asp Asn Leu Trp Thr His Gln Asn Ser Ser Leu Gln Thr His Pro  
195 200 205

Glu Gly Ala Cys Pro Ser Lys Glu Pro Ser Ala Asp Gly Ser Trp Lys  
210 215 220

Glu Leu Tyr Thr Asp Gly Ser Arg Thr Gln Gln Asp Ile Glu Gly Pro  
225 230 235 240

Trp Thr Glu Pro Tyr Thr Asp Gly Ser Gln Lys Lys Gln Asp Thr Glu  
245 250 255

Ala Ala Arg Lys Gln Pro Gly Thr Gly Gly Phe Gln Ile Gln Gln Asp  
260 265 270

Thr Asp Gly Ser Trp Thr Gln Pro Ser Thr Asp Gly Ser Gln Thr Ala  
275 280 285

Pro Gly Thr Asp Cys Leu Leu Gly Glu Pro Glu Asp Gly Pro Leu Glu  
290 295 300

Glu Pro Glu Pro Gly Glu Leu Leu Thr His Leu Tyr Ser His Leu Lys  
305 310 315 320

## EX05-004patentin.txt

Cys Ser Pro Leu Cys Pro Val Pro Arg Leu Ile Ile Thr Pro Glu Thr  
325 330 335

Pro Glu Pro Glu Ala Gln Pro Val Gly Pro Pro Ser Arg Val Glu Gly  
340 345 350

Gly Ser Gly Gly Phe Ser Ser Ala Ser Ser Phe Asp Glu Ser Glu Asp  
355 360 365

Asp Val Val Ala Gly Gly Gly Ala Ser Asp Pro Glu Asp Arg Ser  
370 375 380

Gly Ser Lys Pro Trp Lys Lys Leu Lys Thr Val Leu Lys Tyr Ser Pro  
385 390 395 400

Phe Val Val Ser Phe Arg Lys His Tyr Pro Trp Val Gln Leu Ser Gly  
405 410 415

His Ala Gly Asn Phe Gln Ala Gly Glu Asp Gly Arg Ile Leu Lys Arg  
420 425 430

Phe Cys Gln Cys Glu Gln Arg Ser Leu Glu Gln Leu Met Lys Asp Pro  
435 440 445

Leu Arg Pro Phe Val Pro Ala Tyr Tyr Gly Met Val Leu Gln Asp Gly  
450 455 460

Gln Thr Phe Asn Gln Met Glu Asp Leu Leu Ala Asp Phe Glu Gly Pro  
465 470 475 480

Ser Ile Met Asp Cys Lys Met Gly Ser Arg Thr Tyr Leu Glu Glu  
485 490 495

Leu Val Lys Ala Arg Glu Arg Pro Arg Pro Arg Lys Asp Met Tyr Glu  
500 505 510

Lys Met Val Ala Val Asp Pro Gly Ala Pro Thr Pro Glu Glu His Ala  
515 520 525

Gln Gly Ala Val Thr Lys Pro Arg Tyr Met Gln Trp Arg Glu Thr Met  
530 535 540

Ser Ser Thr Ser Thr Leu Gly Phe Arg Ile Glu Gly Ile Lys Lys Ala  
545 550 555 560

Asp Gly Thr Cys Asn Thr Asn Phe Lys Lys Thr Gln Ala Leu Glu Gln  
565 570 575

Val Thr Lys Val Leu Glu Asp Phe Val Asp Gly Asp His Val Ile Leu  
580 585 590

## EX05-004patentin.txt

Gln Lys Tyr Val Ala Cys Leu Glu Glu Leu Arg Glu Ala Leu Glu Ile  
595 600 605

Ser Pro Phe Phe Lys Thr His Glu Val Val Gly Ser Ser Leu Leu Phe  
610 615 620

Val His Asp His Thr Gly Leu Ala Lys Val Trp Met Ile Asp Phe Gly  
625 630 635 640

Lys Thr Val Ala Leu Pro Asp His Gln Thr Leu Ser His Arg Leu Pro  
645 650 655

Trp Ala Glu Gly Asn Arg Glu Asp Gly Tyr Leu Trp Gly Leu Asp Asn  
660 665 670

Met Ile Cys Leu Leu Gln Gly Leu Ala Gln Ser  
675 680